



## TENNESSEE VALLEY AUTHORITY

### Environmental Impact Statement for Cumberland Fossil Plant Retirement

**AGENCY:** Tennessee Valley Authority.

**ACTION:** Notice of intent.

**SUMMARY:** The Tennessee Valley Authority (TVA) intends to prepare an Environmental Impact Statement (EIS) to assess the impacts associated with the proposed retirement of the two coal-fired units at the Cumberland Fossil Plant (CUF) and the construction and operation of facilities to replace part of the retired generation. TVA will use the EIS process to elicit and prioritize the values and concerns of stakeholders; formulate, evaluate and compare alternatives; provide opportunities for public review and comment; and ensure that TVA's evaluation of potential retirement and replacement energy generation reflects a full range of stakeholder input. Public comment is invited concerning the scope of the EIS, alternatives being considered, and environmental issues that should be addressed as a part of this EIS. TVA is also requesting data, information and analysis relevant to the proposed action from the public; affected Federal, State, tribal, and local governments, agencies, and offices; the scientific community; industry; or any other interested party.

**DATES:** To ensure consideration, comments on the scope and environmental issues must be postmarked, emailed or submitted online no later than June 10, 2021. To facilitate the scoping process, TVA will hold a public scoping meeting; see [http:// www.tva.gov/nepa](http://www.tva.gov/nepa) for more information on the meeting.

**ADDRESSES:** Written comments should be sent to Ashley Pilakowski, NEPA Compliance Specialist, 400 West Summit Hill Dr., WT 11B, Knoxville, TN 37902-1499. Comments may also be submitted online at: [www.tva.gov/nepa](http://www.tva.gov/nepa), or by email at

nepa@tva.gov. Please note that, due to current TVA requirements for many employees to work remotely, TVA recommends the public submit comments electronically to ensure their timely review and consideration.

**FOR FURTHER INFORMATION CONTACT:** Please contact Ashley Pilakowski at the address above, by phone at (865) 632-2256 or email at aapilakowski@tva.gov.

**SUPPLEMENTARY INFORMATION:**

This notice is provided in accordance with the regulations promulgated by Council on Environmental Quality at 40 CFR parts 1500 to 1508 (84 FR 43304, July 16, 2020) and TVA's procedures implementing the National Environmental Policy Act at 18 CFR part 1318. TVA is an agency and instrumentality of the United States, established by an act of Congress in 1933, to foster the social and economic welfare of the people of the Tennessee Valley region and to promote the proper use and conservation of the region's natural resources. One component of this mission is the generation, transmission, and sale of reliable and affordable electric energy.

**Background**

In June 2019, TVA published the 2019 Integrated Resource Plan (IRP), which was developed with input from stakeholder groups and the general public. The 2019 IRP evaluated six scenarios (plausible futures) and five strategies (potential TVA responses to those futures) and identified a range of potential resource additions and retirements throughout the TVA power service area, which encompasses approximately 80,000 square miles covering most of Tennessee and parts of Alabama, Georgia, Kentucky, Mississippi, North Carolina, and Virginia. The target supply mix adopted by the TVA Board through the 2019 IRP included the potential retirement of 2,200 MW of coal-fired generation by 2038. The IRP acknowledged continued operational challenges for the aging coal fleet and included a recommendation to conduct end-of-life evaluations during the term of the IRP to determine whether retirements greater than 2,200 MW would be appropriate.

Following the publication of the IRP, TVA began conducting these evaluations to inform long-term planning. TVA's recent evaluation confirms that the aging coal fleet is among the oldest in the nation and is experiencing deterioration of material condition and performance challenges. The performance challenges are projected to increase because of the coal fleet's advancing age and the difficulty of adapting the fleet's generation within the changing generation profile; and, in general, because the coal fleet is contributing to environmental, economic, and reliability risks.

CUF is located in Cumberland City, Stewart County, Tennessee, approximately 22 miles southwest of Clarksville. The plant is on a large reservation of approximately 2,388 acres located at the confluence of Wells Creek and the south bank of the Cumberland River. Built between 1968 and 1973, CUF is the largest plant in the TVA coal fleet. The two-unit, coal-fired steam-generating plant has a summer net capability of 2,470 megawatts (MW). CUF is 15 to 20 years younger than TVA's other coal plants, but frequent cycling of the large super-critical units, a recent change in the method of plant operation for which the plant was not originally designed, presents reliability challenges that are difficult to anticipate and very expensive to mitigate. Based on this analysis, TVA has developed planning assumptions for CUF retirement. TVA proposes to retire one CUF unit as early as 2026 but no later than 2030, and the second unit as early as 2028 but no later than 2033, dependent on internal and external factors that could affect bringing replacement generation online.

The Cumberland EIS assesses the impact of retiring both CUF units and of replacing the generation of one of those units, as discussed in the Alternatives section below. To recover the generation capacity lost from retirement of one CUF unit, TVA is proposing the addition of approximately 1,450 MW of replacement generation. To maintain adequate reserves on the TVA system, this 1,450 MW replacement generation would need to be in commercial operation prior to retirement of the first CUF unit. Replacement generation for

the second retired CUF unit would likely consist of some combination of gas, solar, and storage, but the planning for that generation can be deferred to allow more time to assess the specific types and locations of that generation. Additional tiered NEPA analysis will be completed as these future generation needs are identified.

### **Alternatives**

TVA anticipates that the scope of the EIS will include various alternatives in addition to the no action alternative (continuing to operate CUF). TVA plans to consider three action alternatives in the EIS: (A) Retirement of CUF and construction and operation of a Combined Cycle Combustion Turbine (CC) Gas Plant at the same site; (B) Retirement of CUF and construction and operation of Simple Cycle Combustion Turbine (CT) Gas Plants at alternate locations; (C) Retirement of CUF and construction and operation of Solar and Storage Facilities, primarily at alternate locations. Whether these or other alternatives are reasonable warranting further consideration under NEPA would be determined in the course of preparing the EIS. Connected actions, such as the natural gas pipeline and transmission upgrades, will also be considered in this assessment.

### **Proposed Issues To Be Addressed**

The EIS will address the effects of each alternative on the environment, including

- emissions of greenhouse gases,
- fuel consumption,
- air quality,
- water quality and quantity,
- waste generation and disposal,
- land use,
- ecological,
- cultural resources,
- transportation,

- visual and noise,
- socioeconomic impacts and environmental justice.

The EIS will include discussion and review of any proposed natural gas pipeline(s) that would be a necessary component of a new proposed CC or CT plants under Alternatives A or B. Currently under Alternative A, TVA is considering replacing generation at the CUF location which would require an approximate 30 mile natural gas pipeline to bring gas supply to the CUF reservation. Under Alternative B, since TVA is considering replacement generation at locations with existing transmission infrastructure and an adequate supply of natural gas, no further pipeline construction would be needed other than the lateral lines necessary to make the connection to the facility itself. The construction of the natural gas pipeline(s) would likely be subject to Federal Energy Regulatory Commission (FERC) jurisdiction and additional review will be undertaken by FERC in accordance with its own NEPA procedures. The proposed action may also require issuance of an Individual or Nationwide Permit under Section 404 of the Clean Water Act; Section 401 Water Quality Certification; conformance with Executive Orders on Environmental Justice (12898), Wetlands (11990), Floodplain Management (11988), Migratory Birds (13186), and Invasive Species (13112); and compliance with Section 106 of the National Historic Preservation Act, Section 7 of the Endangered Species Act, and other applicable Local, Federal and State regulations.

### **Scoping Process**

Scoping, which is integral to the process for implementing NEPA, provides an early and open process to ensure that (1) issues are identified early and properly studied; (2) issues of little significance do not consume substantial time and effort; (3) the draft EIS is thorough and balanced; and (4) delays caused by an inadequate EIS are avoided.

TVA invites members of the public as well as Federal, state, and local agencies and federally recognized Indian tribes to comment on the scope of the EIS. Information about

this project is available on the TVA web page at [www.tva.com/nepa](http://www.tva.com/nepa), including a link to a virtual public meeting room and an online public comment page. Comments on the scope of this EIS should be submitted no later than the date given under the **DATES** section of this notice. Any comments received, including names and addresses, will become part of the administrative record and will be available for public inspection.

After consideration of the comments received during this scoping period, TVA will summarize public and agency comments, identify the issues and alternatives to be addressed in the draft EIS, and identify the schedule for completing the EIS process. Following analysis of the issues, TVA will prepare a draft EIS for public review and comment. Notice of availability of the draft EIS will be published by the U.S.

Environmental Protection Agency in the Federal Register. TVA will solicit written comments on the draft EIS and also hold a public open house, which may be virtual, for this purpose. TVA expects to release the draft EIS in Spring of 2022. TVA anticipates issuing the final EIS in Fall of 2022 and a record of decision at least 30 days after its release.

**Rebecca Tolene,**

*Vice President,*

*Environment.*